FIG. 1

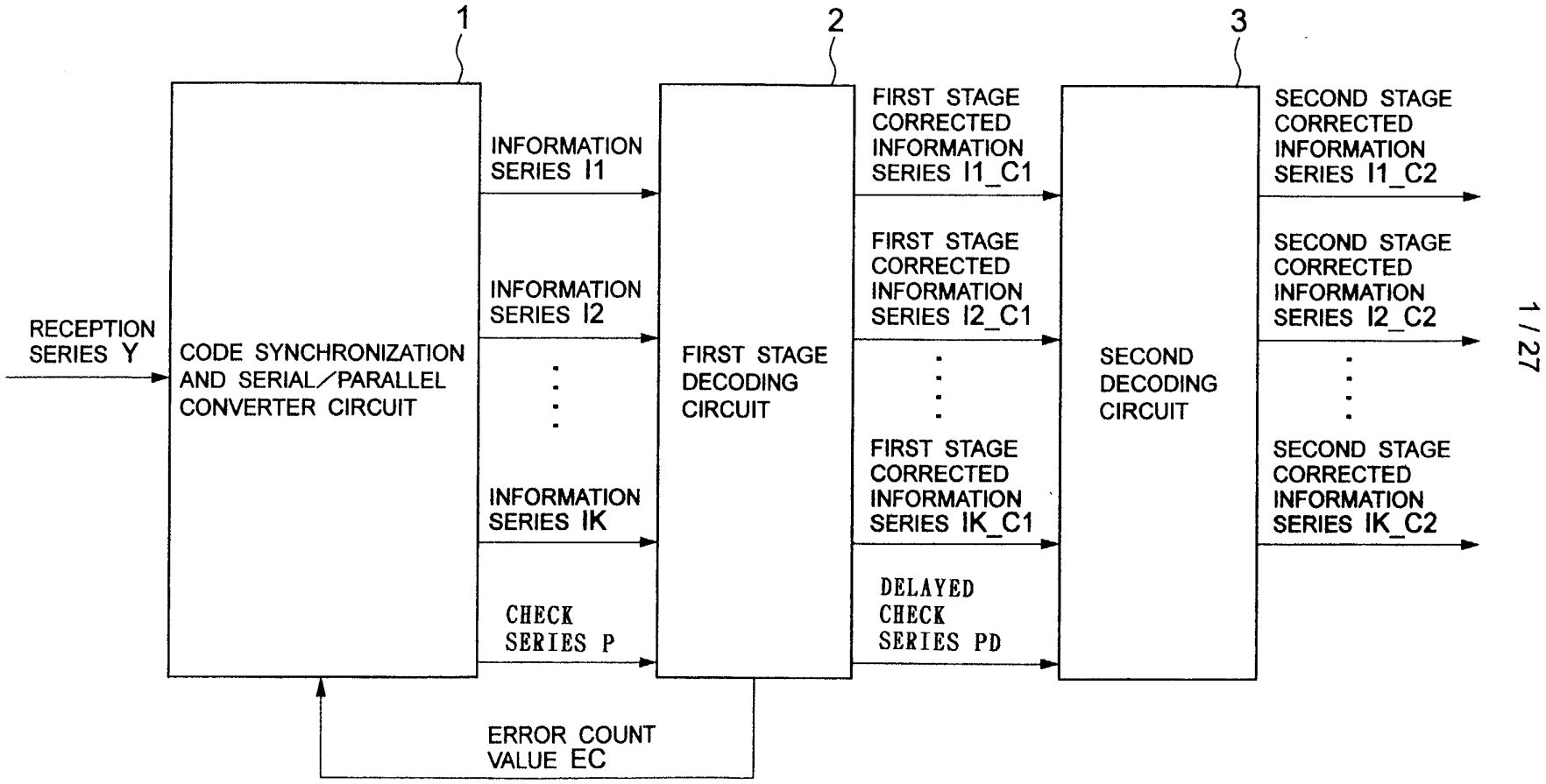

1
2
3
RECEPTION SERIES Y
CODE SYNCHRONIZATION AND SERIAL/PARALLEL CONVERTER CIRCUIT
INFORMATION SERIES I1
INFORMATION SERIES I2
INFORMATION SERIES IK
CHECK SERIES P
FIRST STAGE DECODING CIRCUIT
FIRST STAGE CORRECTED INFORMATION SERIES I1_C1
FIRST STAGE CORRECTED INFORMATION SERIES I2_C1
FIRST STAGE CORRECTED INFORMATION SERIES IK_C1
DELAYED CHECK SERIES PD
SECOND DECODING CIRCUIT
SECOND STAGE CORRECTED INFORMATION SERIES I1_C2
SECOND STAGE CORRECTED INFORMATION SERIES I2_C2
SECOND STAGE CORRECTED INFORMATION SERIES IK_C2
ERROR COUNT VALUE EC

FIG.2

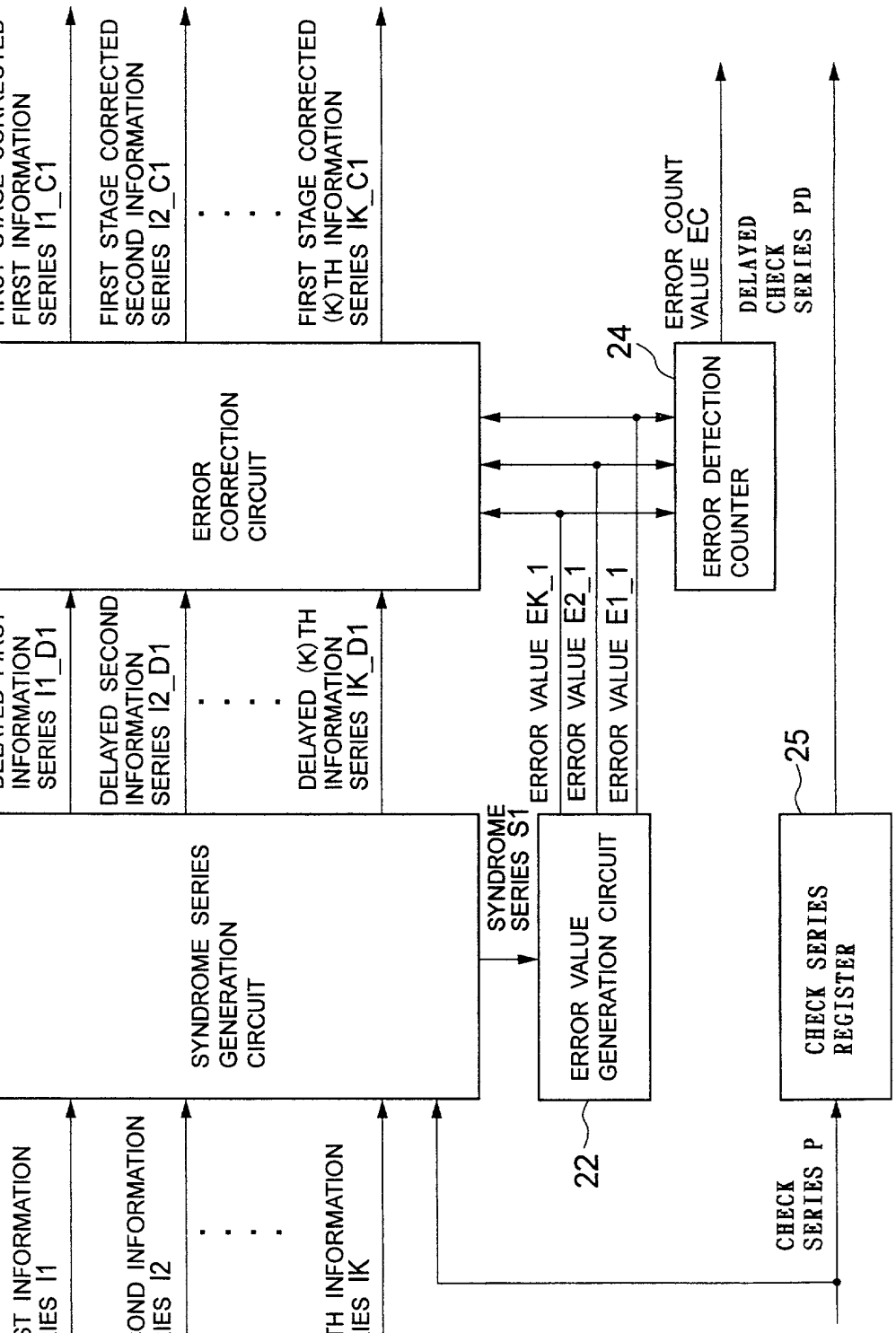

FIRST INFORMATION SERIES I1
SECOND INFORMATION SERIES I2
(K)TH INFORMATION SERIES IK
21
SYNDROME SERIES GENERATION CIRCUIT
DELAYED FIRST INFORMATION SERIES I1_D1
DELAYED SECOND INFORMATION SERIES I2_D1
DELAYED (K)TH INFORMATION SERIES IK_D1
SYNDROME SERIES S1
ERROR VALUE EK_1
ERROR VALUE E2_1
ERROR VALUE E1_1
22
ERROR VALUE GENERATION CIRCUIT
23
ERROR CORRECTION CIRCUIT
FIRST STAGE CORRECTED FIRST INFORMATION SERIES I1_C1
FIRST STAGE CORRECTED SECOND INFORMATION SERIES I2_C1
FIRST STAGE CORRECTED (K)TH INFORMATION SERIES IK_C1
24
ERROR DETECTION COUNTER
ERROR COUNT VALUE EC
DELAYED CHECK SERIES PD
25
CHECK SERIES REGISTER
CHECK SERIES P

FIG.3

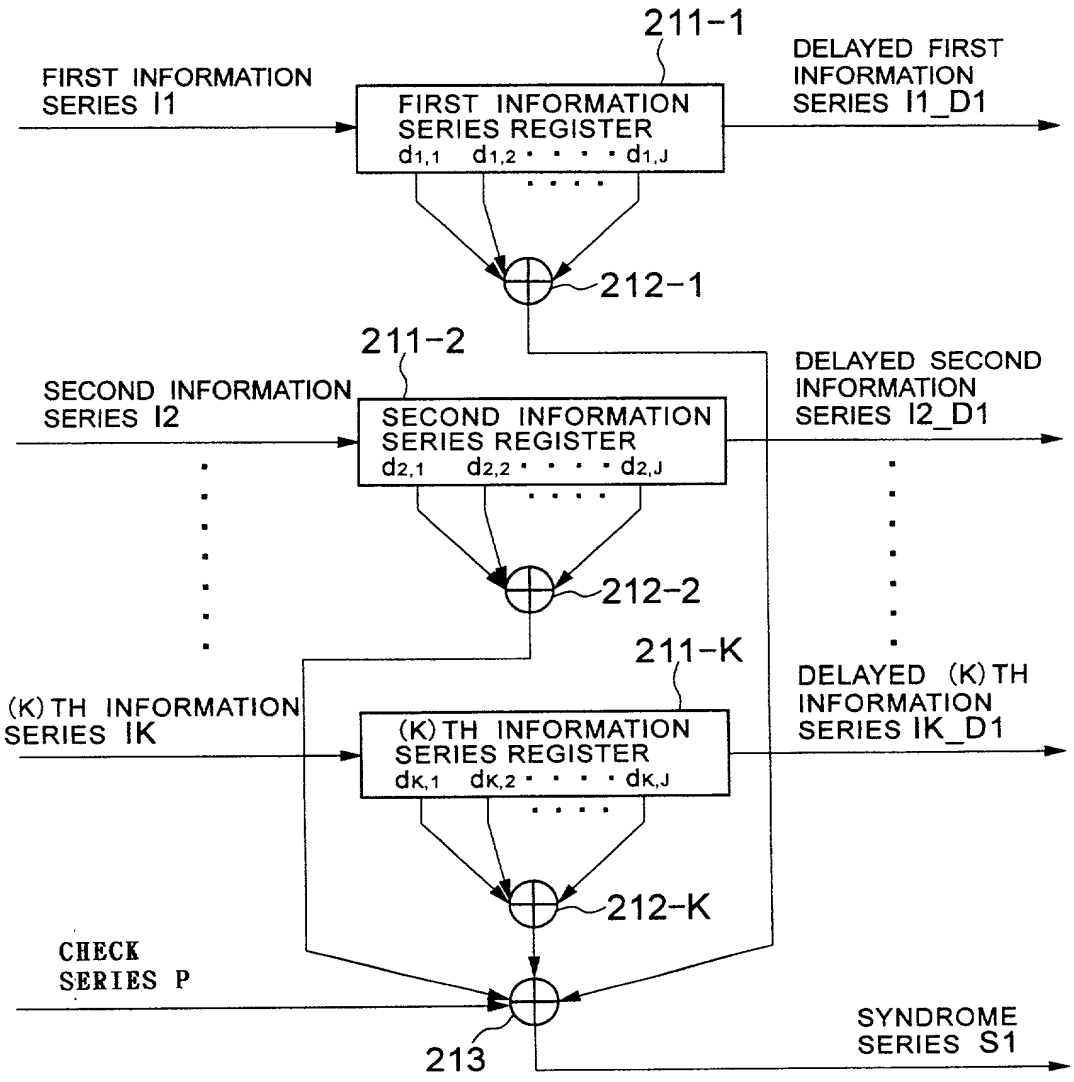

211-1
FIRST INFORMATION SERIES I1
FIRST INFORMATION SERIES REGISTER
d1,1 d1,2 · · · · d1,J
DELAYED FIRST INFORMATION SERIES I1_D1
212-1
211-2
SECOND INFORMATION SERIES I2
SECOND INFORMATION SERIES REGISTER
d2,1 d2,2 · · · · d2,J
DELAYED SECOND INFORMATION SERIES I2_D1
212-2
211-K
(K) TH INFORMATION SERIES IK
(K) TH INFORMATION SERIES REGISTER
dK,1 dK,2 · · · · dK,J
DELAYED (K) TH INFORMATION SERIES IK_D1
212-K
CHECK SERIES P
213
SYNDROME SERIES S1

FIG.4

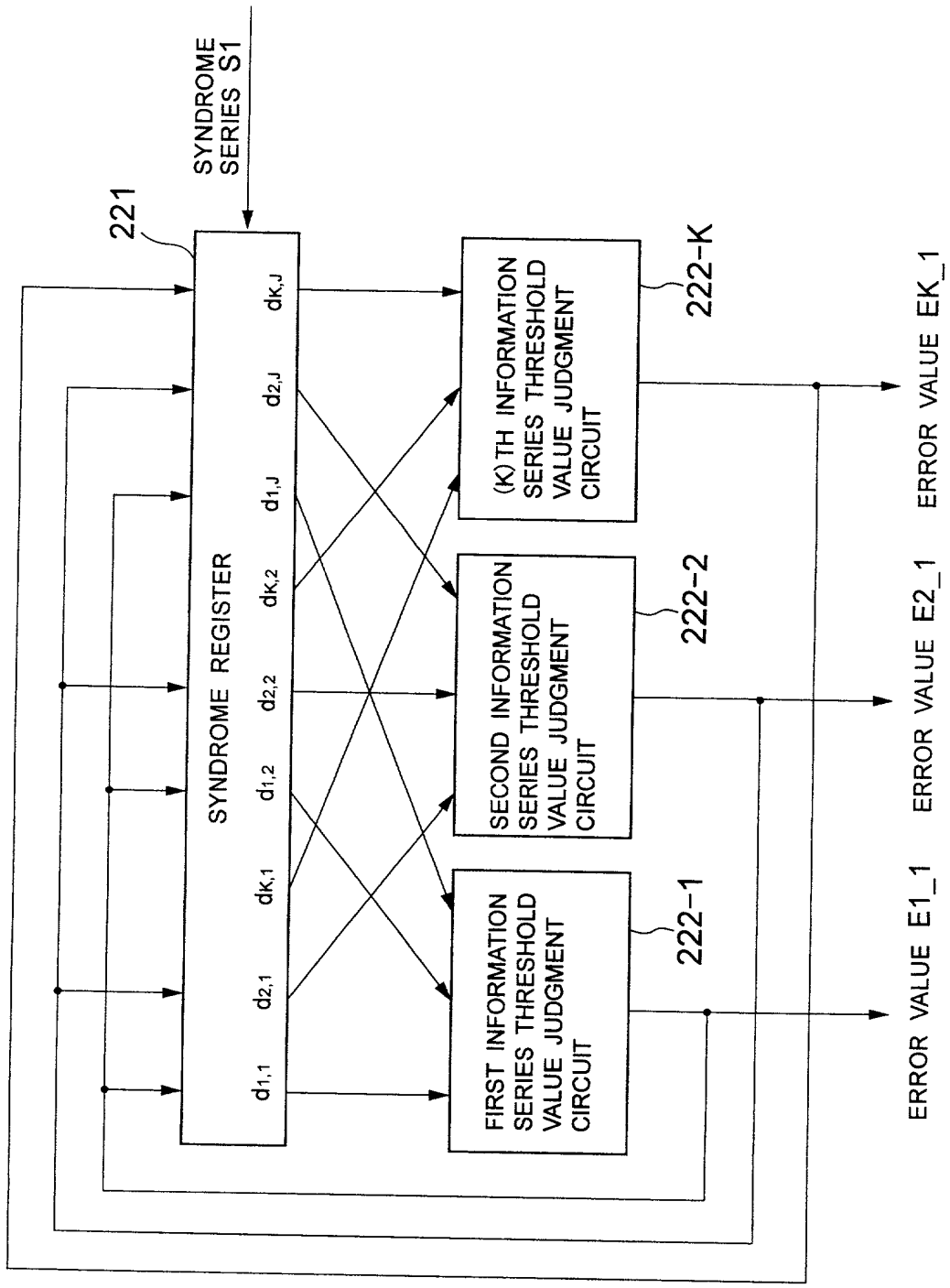

SYNDROME SERIES S1
221
SYNDROME REGISTER
$d_{1,1}$
$d_{2,1}$
$d_{K,1}$
$d_{1,2}$
$d_{2,2}$
$d_{K,2}$
$d_{1,J}$
$d_{2,J}$
$d_{K,J}$
FIRST INFORMATION SERIES THRESHOLD VALUE JUDGMENT CIRCUIT
222-1
SECOND INFORMATION SERIES THRESHOLD VALUE JUDGMENT CIRCUIT
222-2
(K) TH INFORMATION SERIES THRESHOLD VALUE JUDGMENT CIRCUIT
222-K
ERROR VALUE E1_1
ERROR VALUE E2_1
ERROR VALUE EK_1

FIG.5

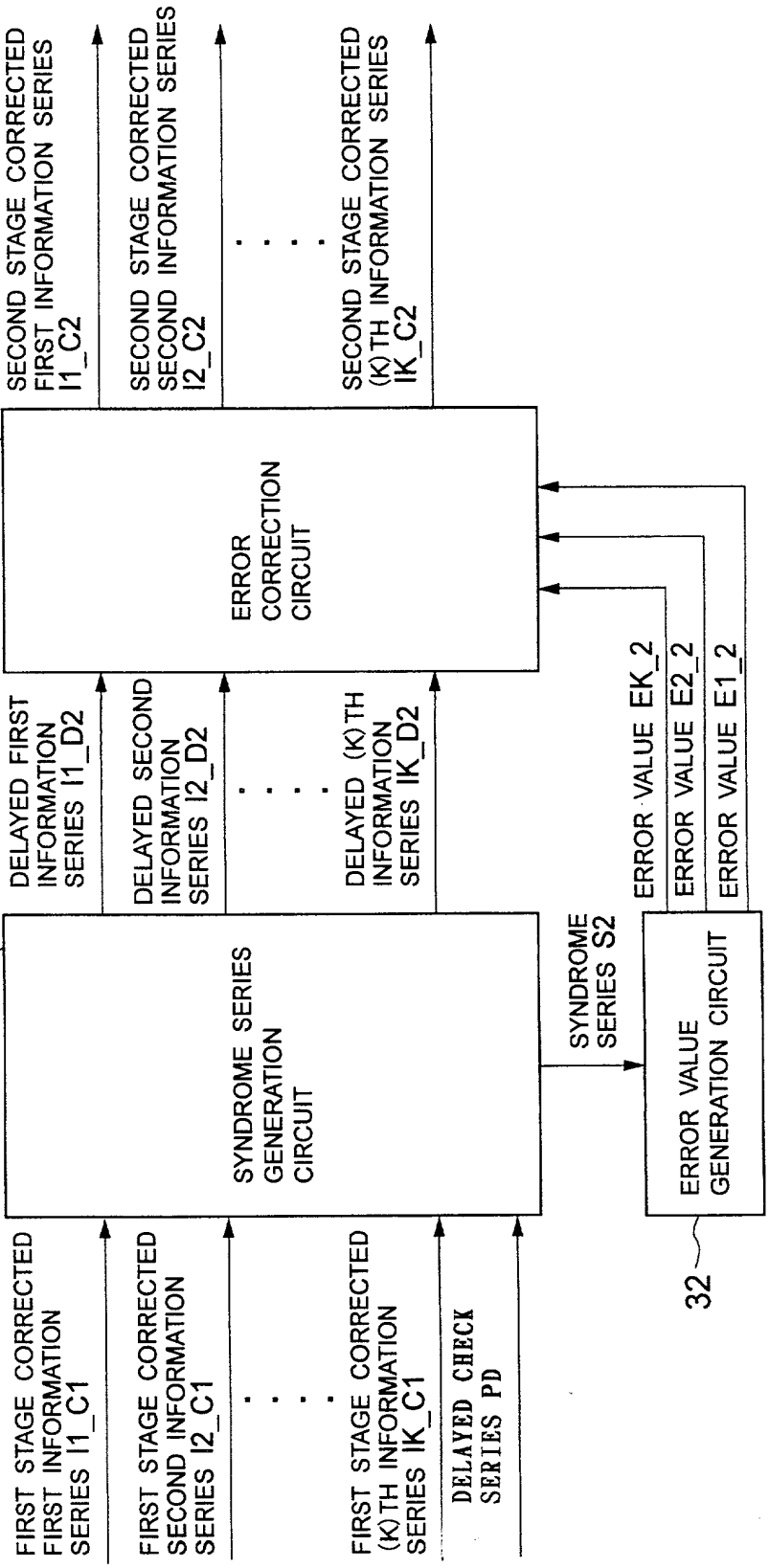

FIRST STAGE CORRECTED FIRST INFORMATION SERIES I1_C1
FIRST STAGE CORRECTED SECOND INFORMATION SERIES I2_C1
FIRST STAGE CORRECTED (K)TH INFORMATION SERIES IK_C1
DELAYED CHECK SERIES PD
31
SYNDROME SERIES GENERATION CIRCUIT
DELAYED FIRST INFORMATION SERIES I1_D2
DELAYED SECOND INFORMATION SERIES I2_D2
DELAYED (K)TH INFORMATION SERIES IK_D2
SYNDROME SERIES S2
32
ERROR VALUE GENERATION CIRCUIT
ERROR VALUE EK_2
ERROR VALUE E2_2
ERROR VALUE E1_2
33
ERROR CORRECTION CIRCUIT
SECOND STAGE CORRECTED FIRST INFORMATION SERIES I1_C2
SECOND STAGE CORRECTED SECOND INFORMATION SERIES I2_C2
SECOND STAGE CORRECTED (K)TH INFORMATION SERIES IK_C2

FIG.6

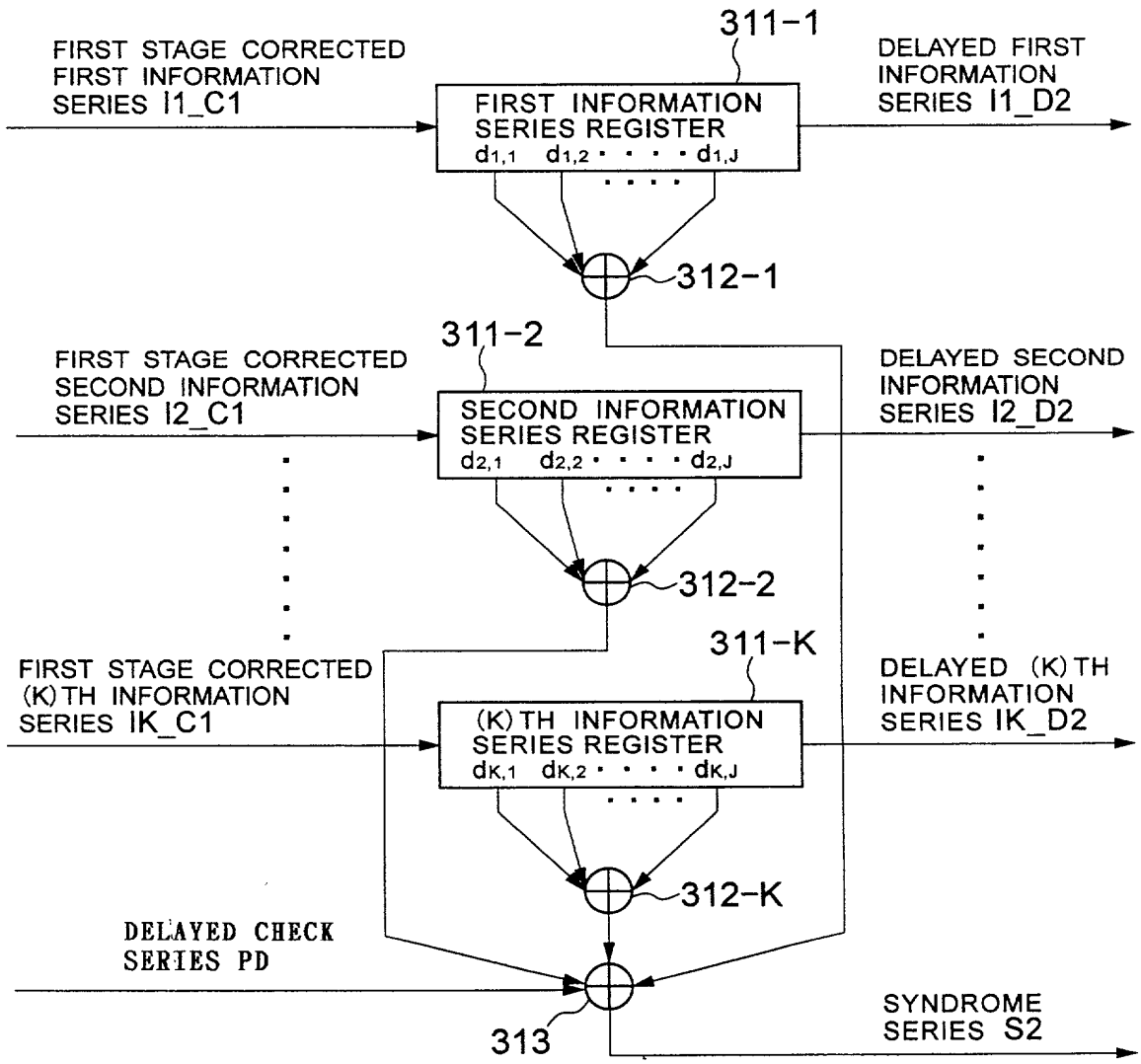

311-1
FIRST STAGE CORRECTED FIRST INFORMATION SERIES I1_C1
FIRST INFORMATION SERIES REGISTER
d1,1 d1,2 · · · · d1,J
DELAYED FIRST INFORMATION SERIES I1_D2
312-1
311-2
FIRST STAGE CORRECTED SECOND INFORMATION SERIES I2_C1
SECOND INFORMATION SERIES REGISTER
d2,1 d2,2 · · · · d2,J
DELAYED SECOND INFORMATION SERIES I2_D2
312-2
311-K
FIRST STAGE CORRECTED (K)TH INFORMATION SERIES IK_C1
(K)TH INFORMATION SERIES REGISTER
dK,1 dK,2 · · · · dK,J
DELAYED (K)TH INFORMATION SERIES IK_D2
312-K
DELAYED CHECK SERIES PD
313
SYNDROME SERIES S2

FIG.7

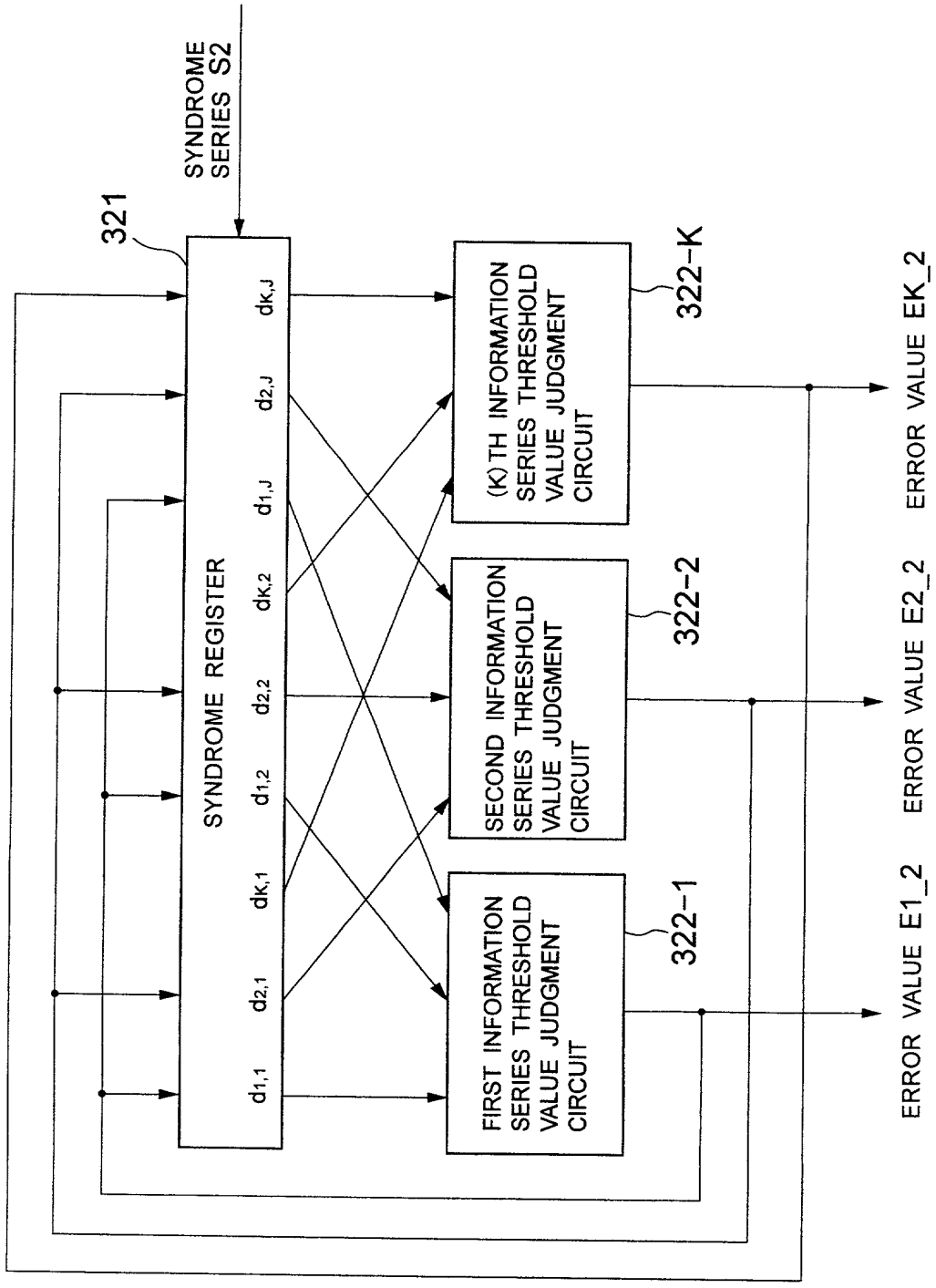


FIG.8

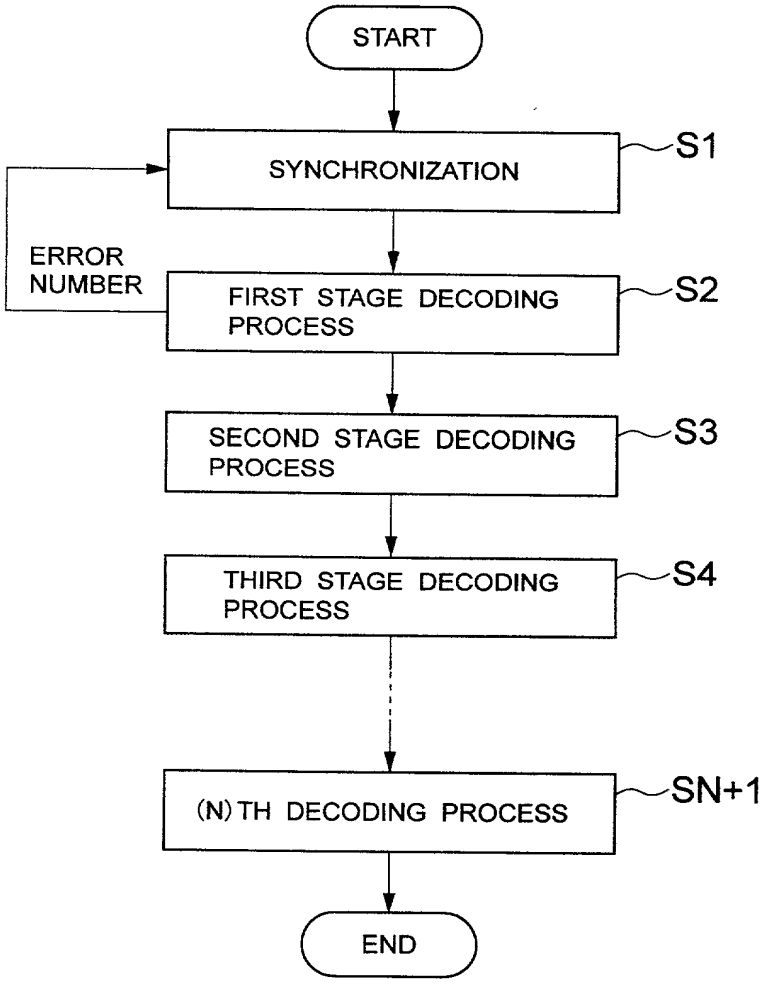

START
SYNCHRONIZATION
S1
ERROR NUMBER
FIRST STAGE DECODING PROCESS
S2
SECOND STAGE DECODING PROCESS
S3
THIRD STAGE DECODING PROCESS
S4
(N) TH DECODING PROCESS
SN+1
END

FIG.9

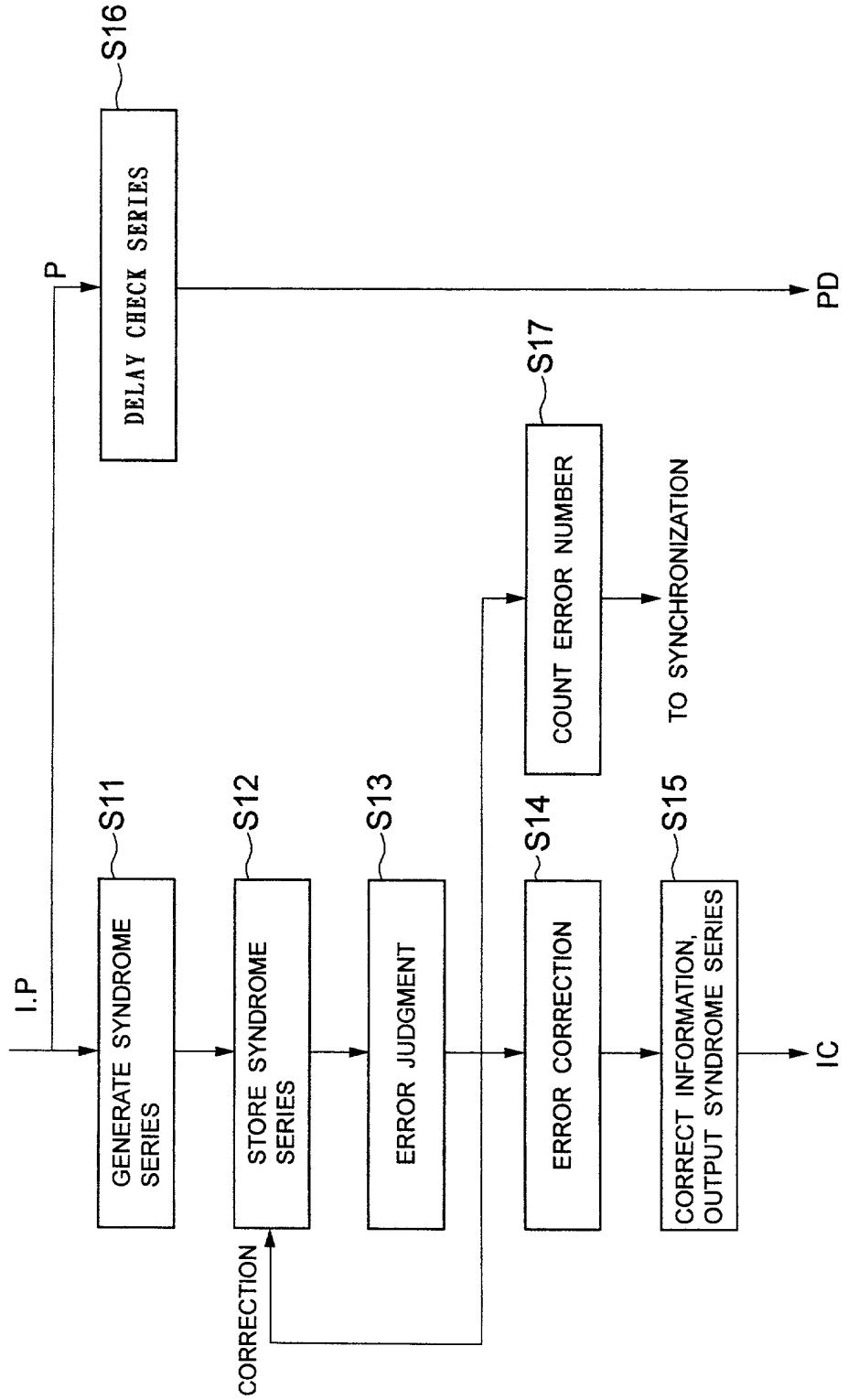

I.P
P
S11
GENERATE SYNDROME SERIES
S12
STORE SYNDROME SERIES
S13
ERROR JUDGMENT
S14
ERROR CORRECTION
S15
CORRECT INFORMATION, OUTPUT SYNDROME SERIES
IC
S16
DELAY CHECK SERIES
PD
S17
COUNT ERROR NUMBER
TO SYNCHRONIZATION
CORRECTION

FIG.10

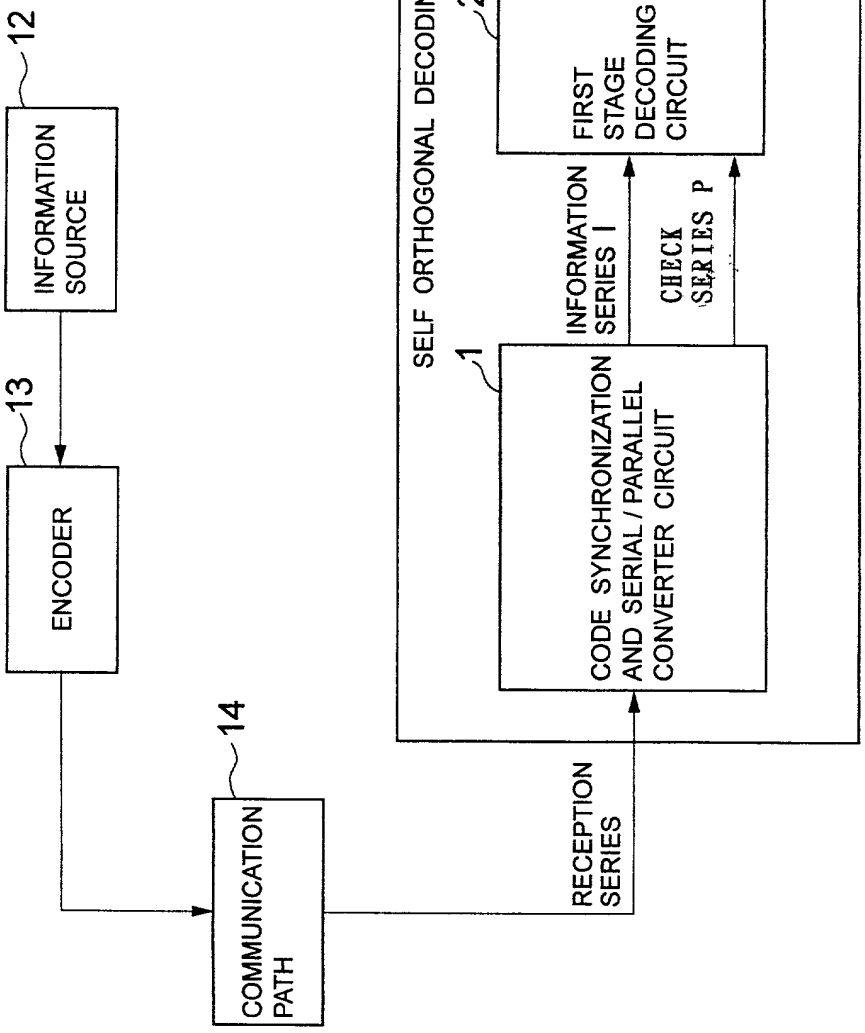

INFORMATION SOURCE
12
ENCODER
13
COMMUNICATION PATH
14
RECEPTION SERIES
SELF ORTHOGONAL DECODING CIRCUIT
11
CODE SYNCHRONIZATION AND SERIAL / PARALLEL CONVERTER CIRCUIT
1
INFORMATION SERIES I
CHECK SERIES P
FIRST STAGE DECODING CIRCUIT
2
FIRST STAGE CORRECTED INFORMATION SERIES IC
DELAYED CHECK SERIES PD
SECOND STAGE DECODING CIRCUIT
3
DECODING SERIES

FIG.11

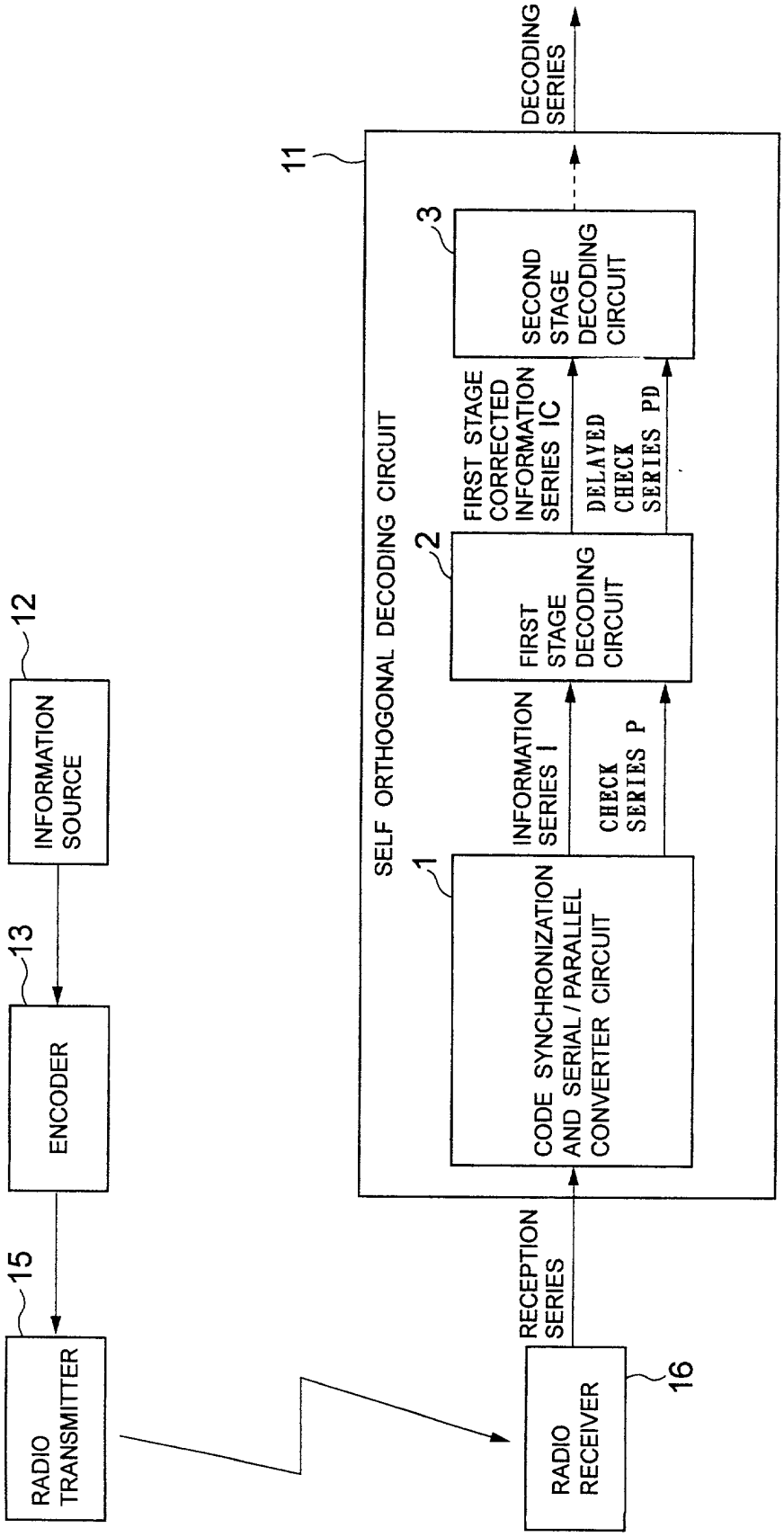

RADIO TRANSMITTER
15
ENCODER
13
INFORMATION SOURCE
12
RADIO RECEIVER
16
RECEPTION SERIES
11
SELF ORTHOGONAL DECODING CIRCUIT
1
CODE SYNCHRONIZATION AND SERIAL / PARALLEL CONVERTER CIRCUIT
INFORMATION SERIES I
CHECK SERIES P
2
FIRST STAGE DECODING CIRCUIT
FIRST STAGE CORRECTED INFORMATION SERIES IC
DELAYED CHECK SERIES PD
3
SECOND STAGE DECODING CIRCUIT
DECODING SERIES

FIG. 12

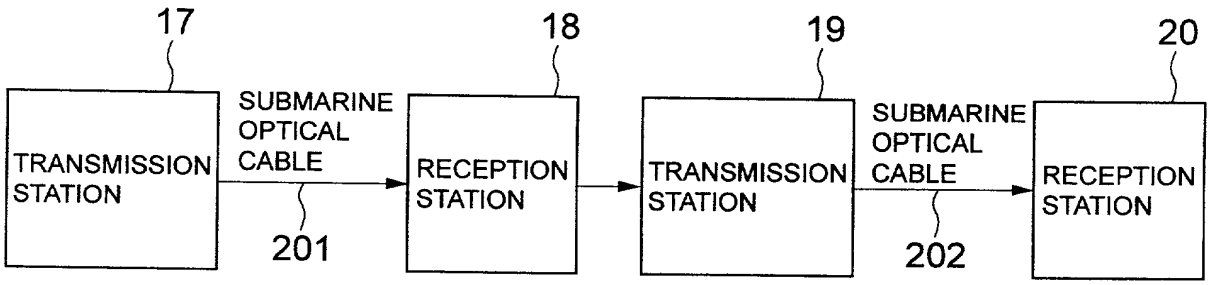


FIG. 13

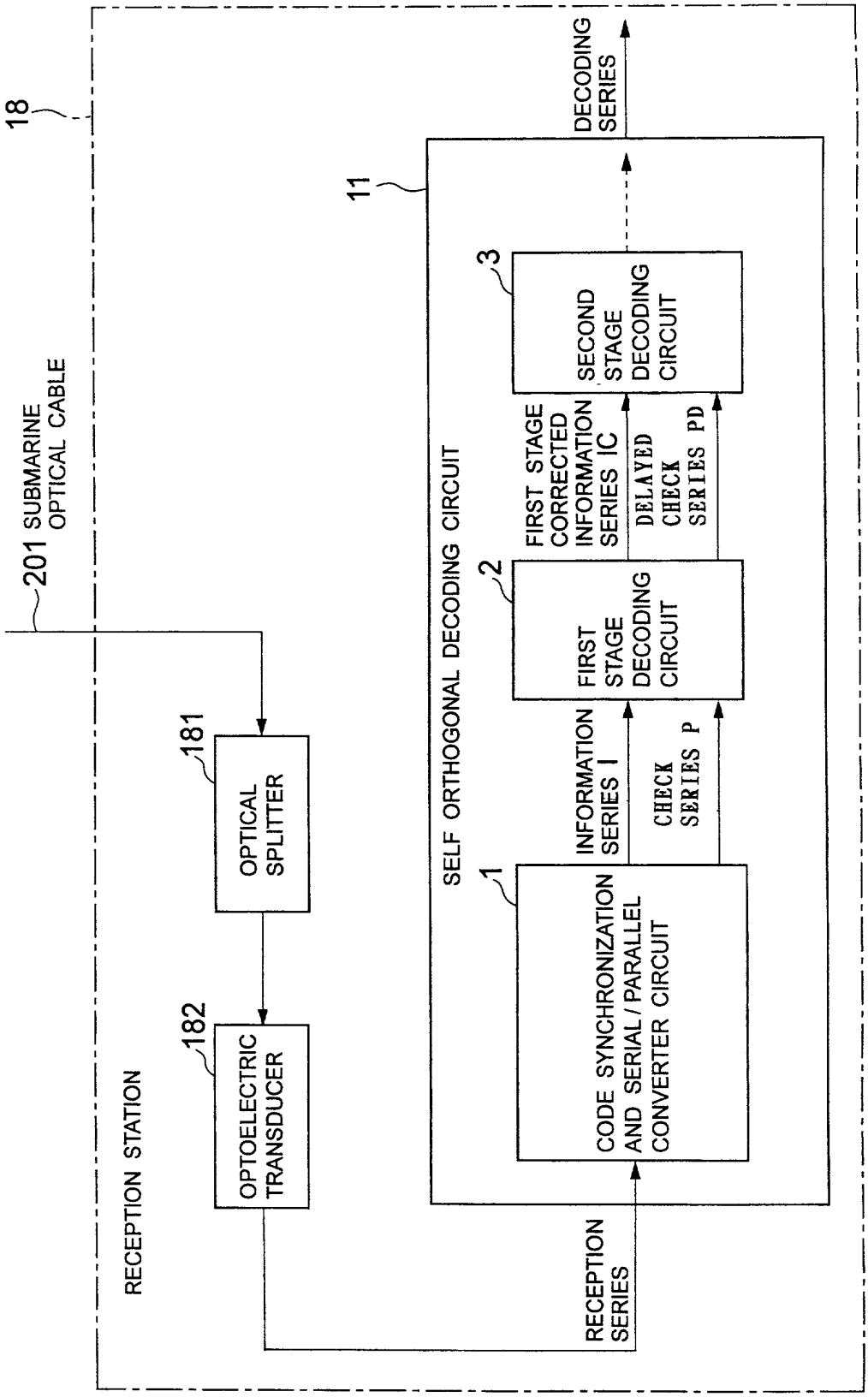

18
201 SUBMARINE OPTICAL CABLE
RECEPTION STATION
181
OPTICAL SPLITTER
182
OPTOELECTRIC TRANSDUCER
RECEPTION SERIES
11
SELF ORTHOGONAL DECODING CIRCUIT
1
CODE SYNCHRONIZATION AND SERIAL / PARALLEL CONVERTER CIRCUIT
INFORMATION SERIES I
CHECK SERIES P
2
FIRST STAGE DECODING CIRCUIT
FIRST STAGE CORRECTED INFORMATION SERIES IC
DELAYED CHECK SERIES PD
3
SECOND STAGE DECODING CIRCUIT
DECODING SERIES

FIG.14

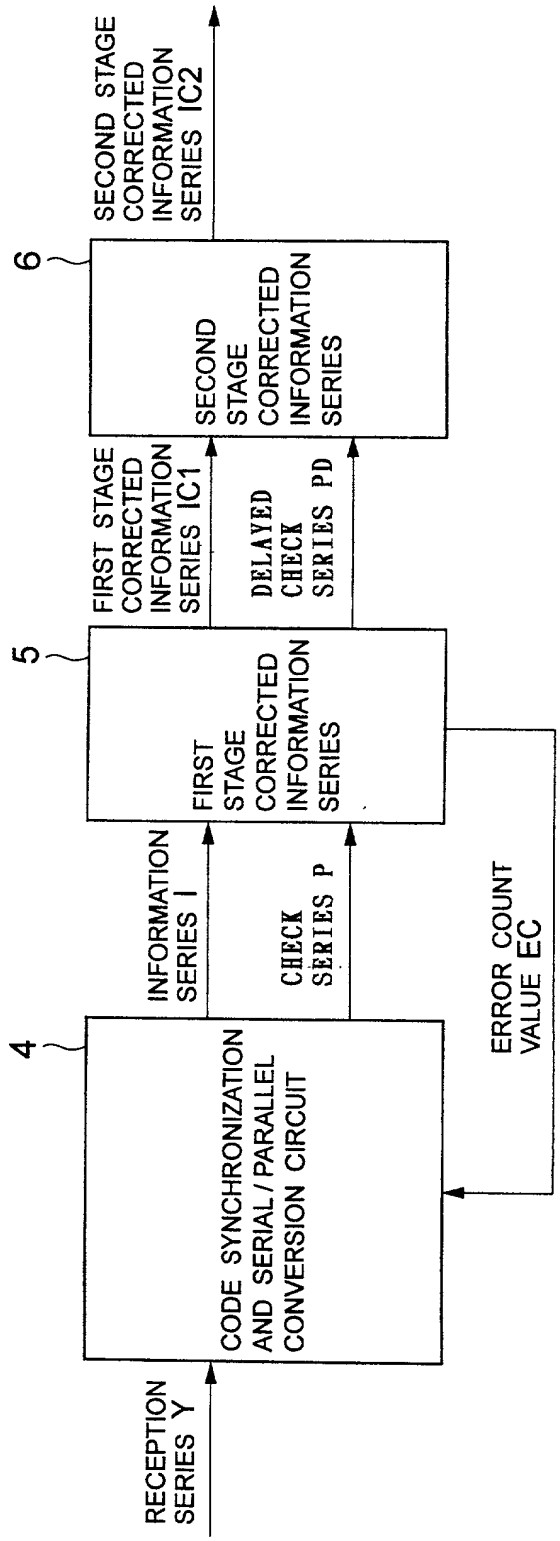


FIG.15

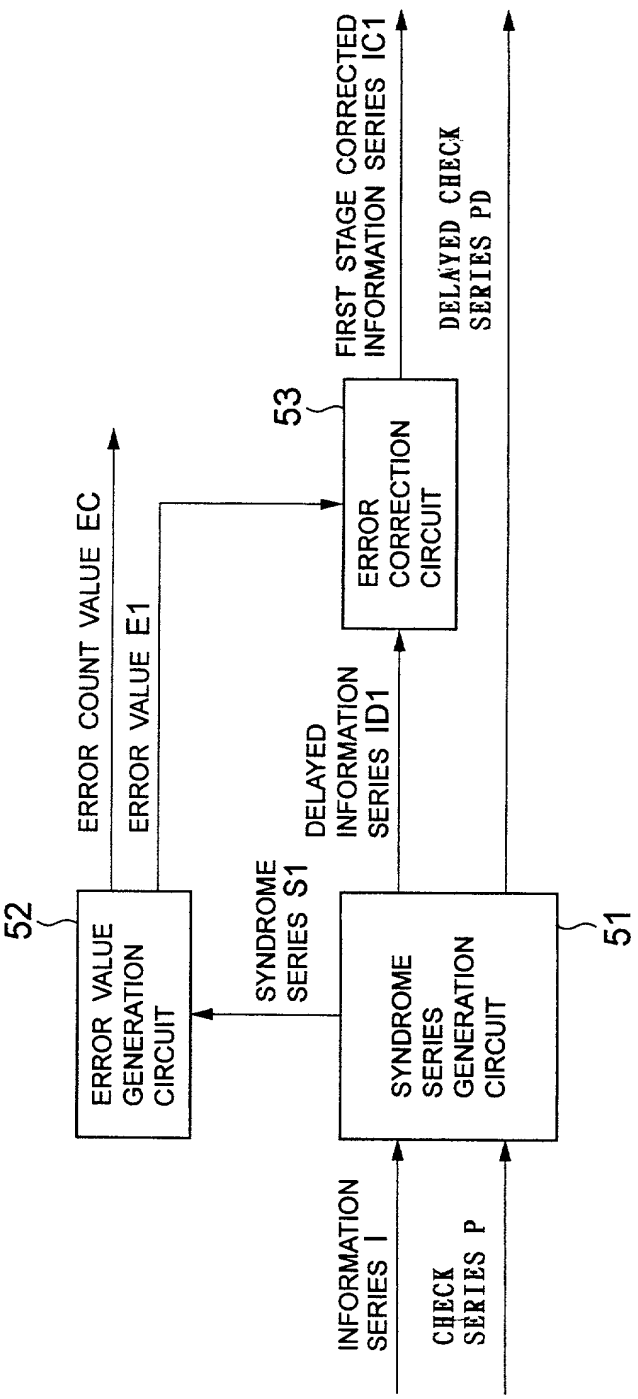

INFORMATION SERIES I
CHECK SERIES P
SYNDROME SERIES GENERATION CIRCUIT
51
SYNDROME SERIES S1
ERROR VALUE GENERATION CIRCUIT
52
DELAYED INFORMATION SERIES ID1
ERROR CORRECTION CIRCUIT
53
ERROR COUNT VALUE EC
ERROR VALUE E1
FIRST STAGE CORRECTED INFORMATION SERIES IC1
DELAYED CHECK SERIES PD

FIG.16

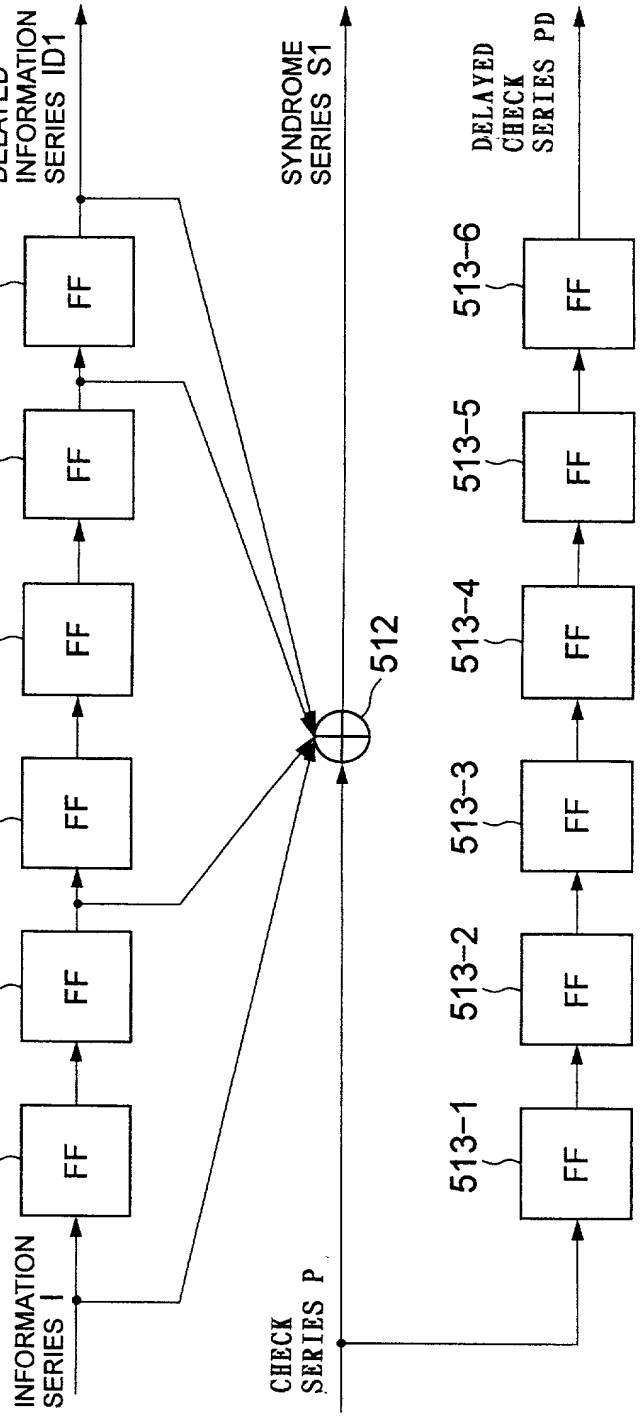

INFORMATION SERIES I
511-1
511-2
511-3
511-4
511-5
511-6
FF
DELAYED INFORMATION SERIES ID1
512
SYNDROME SERIES S1
CHECK SERIES P
513-1
513-2
513-3
513-4
513-5
513-6
DELAYED CHECK SERIES PD

FIG. 17

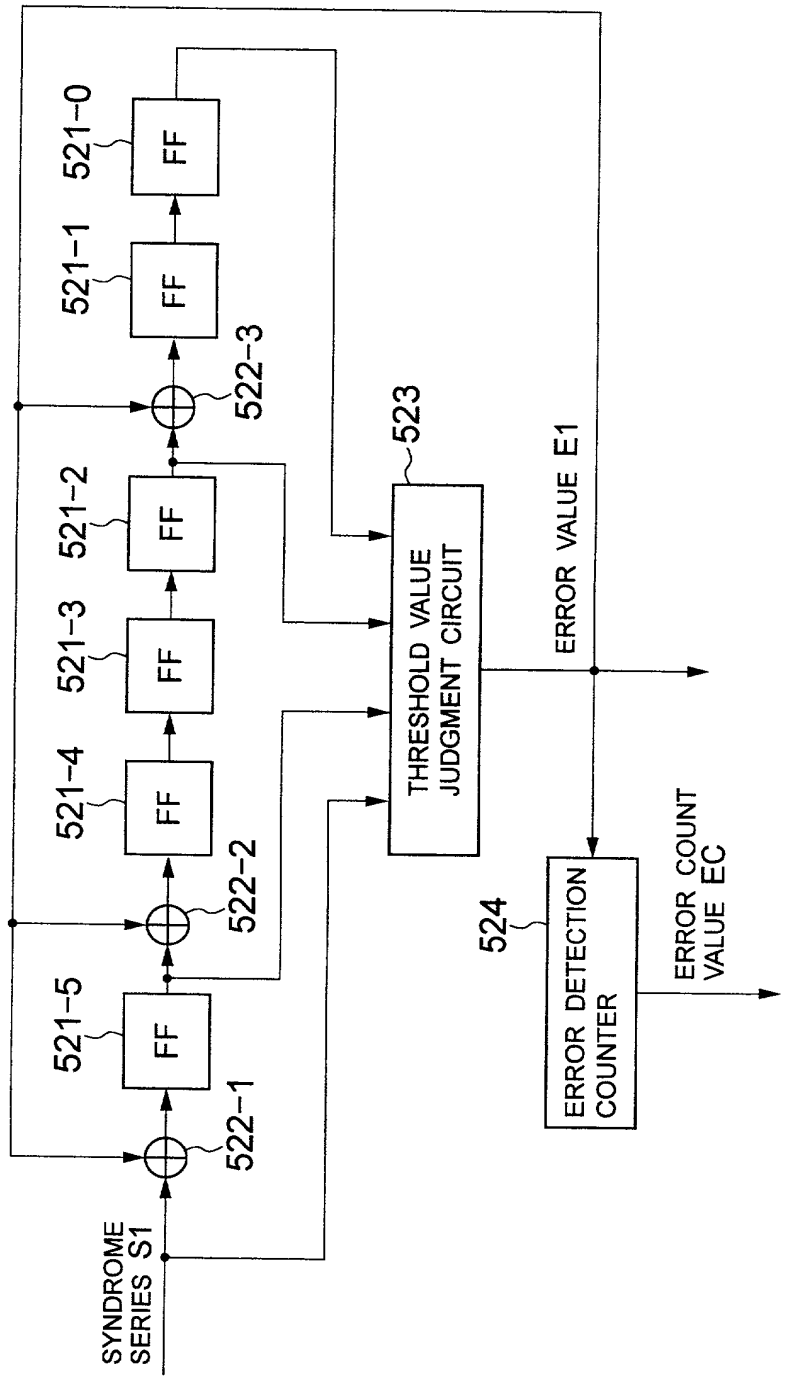

SYNDROME SERIES S1
521-5
521-4
521-3
521-2
521-1
521-0
FF
522-1
522-2
522-3
523
THRESHOLD VALUE JUDGMENT CIRCUIT
ERROR VALUE E1
524
ERROR DETECTION COUNTER
ERROR COUNT VALUE EC

FIG.18

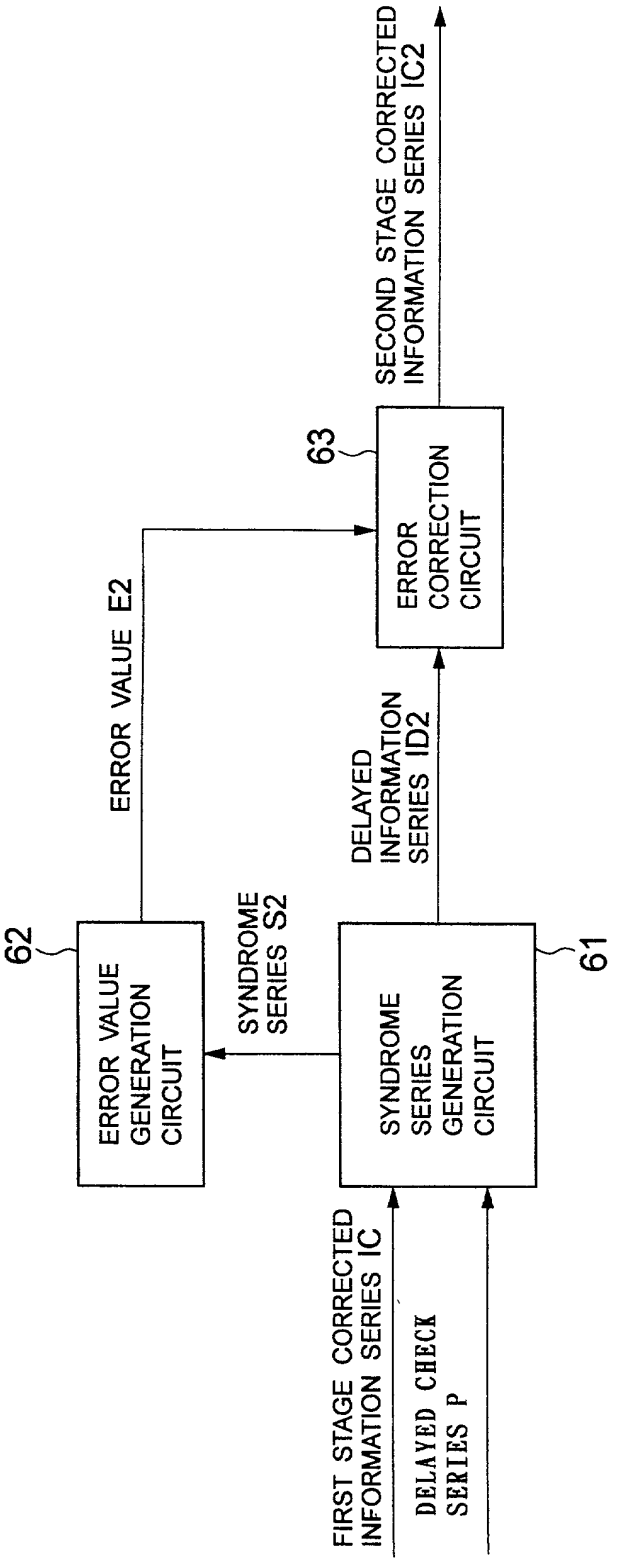

FIRST STAGE CORRECTED INFORMATION SERIES IC
DELAYED CHECK SERIES P
SYNDROME SERIES GENERATION CIRCUIT
61
DELAYED INFORMATION SERIES ID2
SYNDROME SERIES S2
ERROR VALUE GENERATION CIRCUIT
62
ERROR VALUE E2
ERROR CORRECTION CIRCUIT
63
SECOND STAGE CORRECTED INFORMATION SERIES IC2

FIG.19

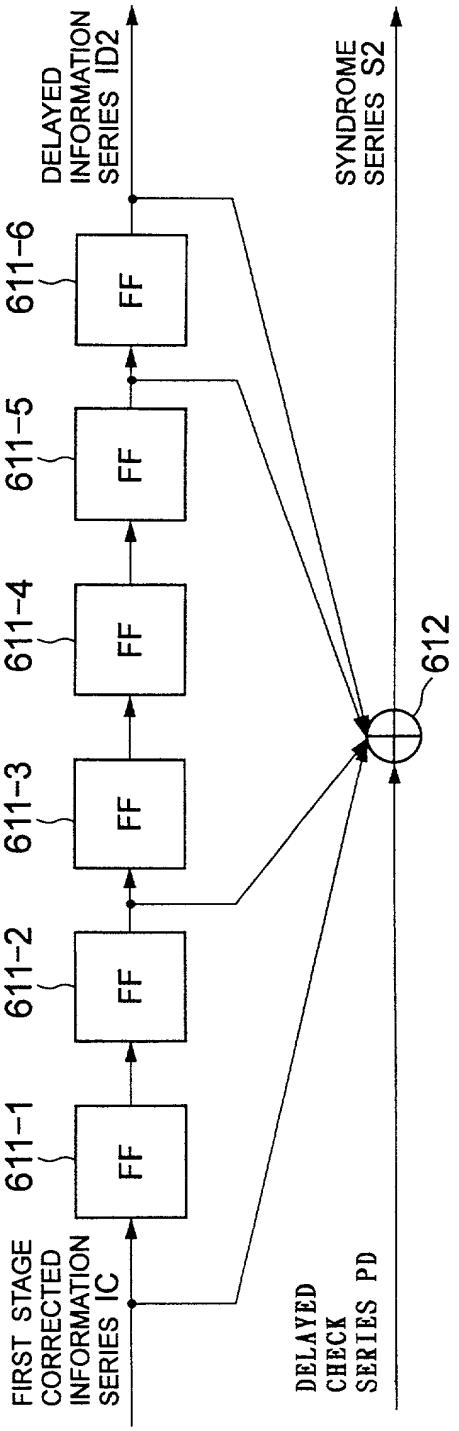

FIRST STAGE CORRECTED INFORMATION SERIES IC
611-1
611-2
611-3
611-4
611-5
611-6
FF
DELAYED INFORMATION SERIES ID2
DELAYED CHECK SERIES PD
SYNDROME SERIES S2
612

FIG.20

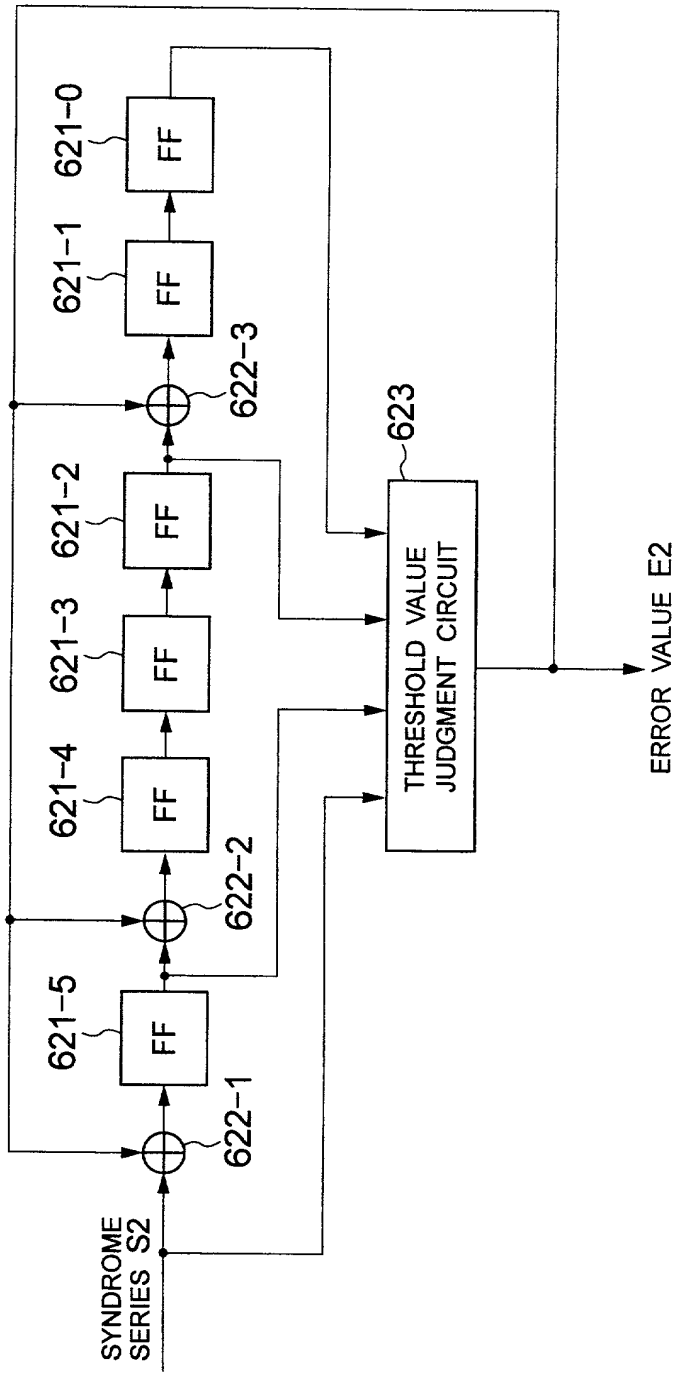

SYNDROME SERIES S2
621-5
621-4
621-3
621-2
621-1
621-0
FF
622-1
622-2
622-3
623
THRESHOLD VALUE JUDGMENT CIRCUIT
ERROR VALUE E2

FIG.21

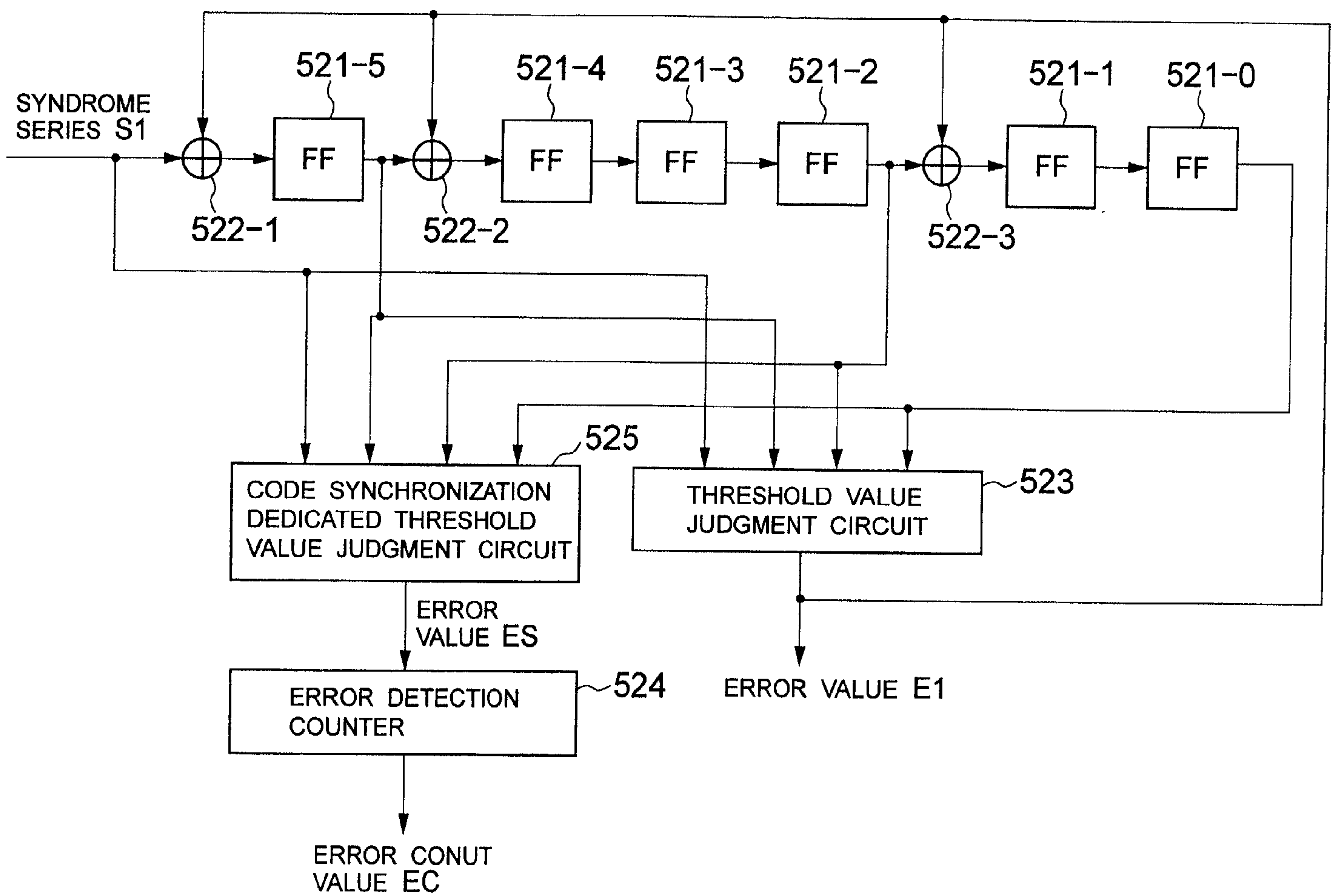

SYNDROME
SERIES S1
521-5
521-4
521-3
521-2
521-1
521-0
FF
FF
FF
FF
FF
FF
522-1
522-2
522-3
525
CODE SYNCHRONIZATION
DEDICATED THRESHOLD
VALUE JUDGMENT CIRCUIT
THRESHOLD VALUE
JUDGMENT CIRCUIT
523
ERROR
VALUE ES
ERROR DETECTION
COUNTER
524
ERROR VALUE E1
ERROR CONUT
VALUE EC

FIG.22

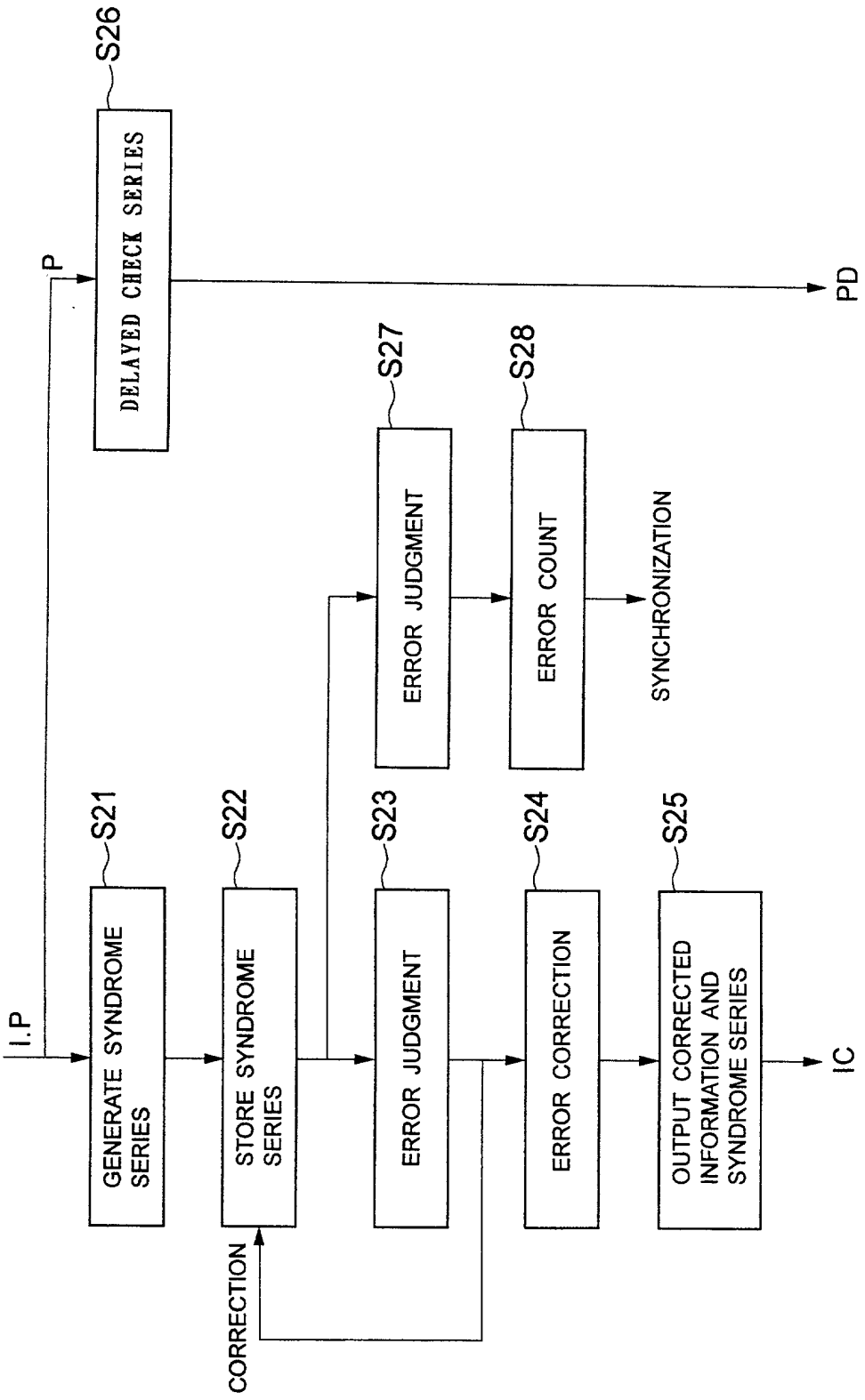

I.P
P
S21
GENERATE SYNDROME SERIES
S22
STORE SYNDROME SERIES
S23
ERROR JUDGMENT
S24
ERROR CORRECTION
S25
OUTPUT CORRECTED INFORMATION AND SYNDROME SERIES
IC
CORRECTION
S26
DELAYED CHECK SERIES
PD
S27
ERROR JUDGMENT
S28
ERROR COUNT
SYNCHRONIZATION

FIG.23

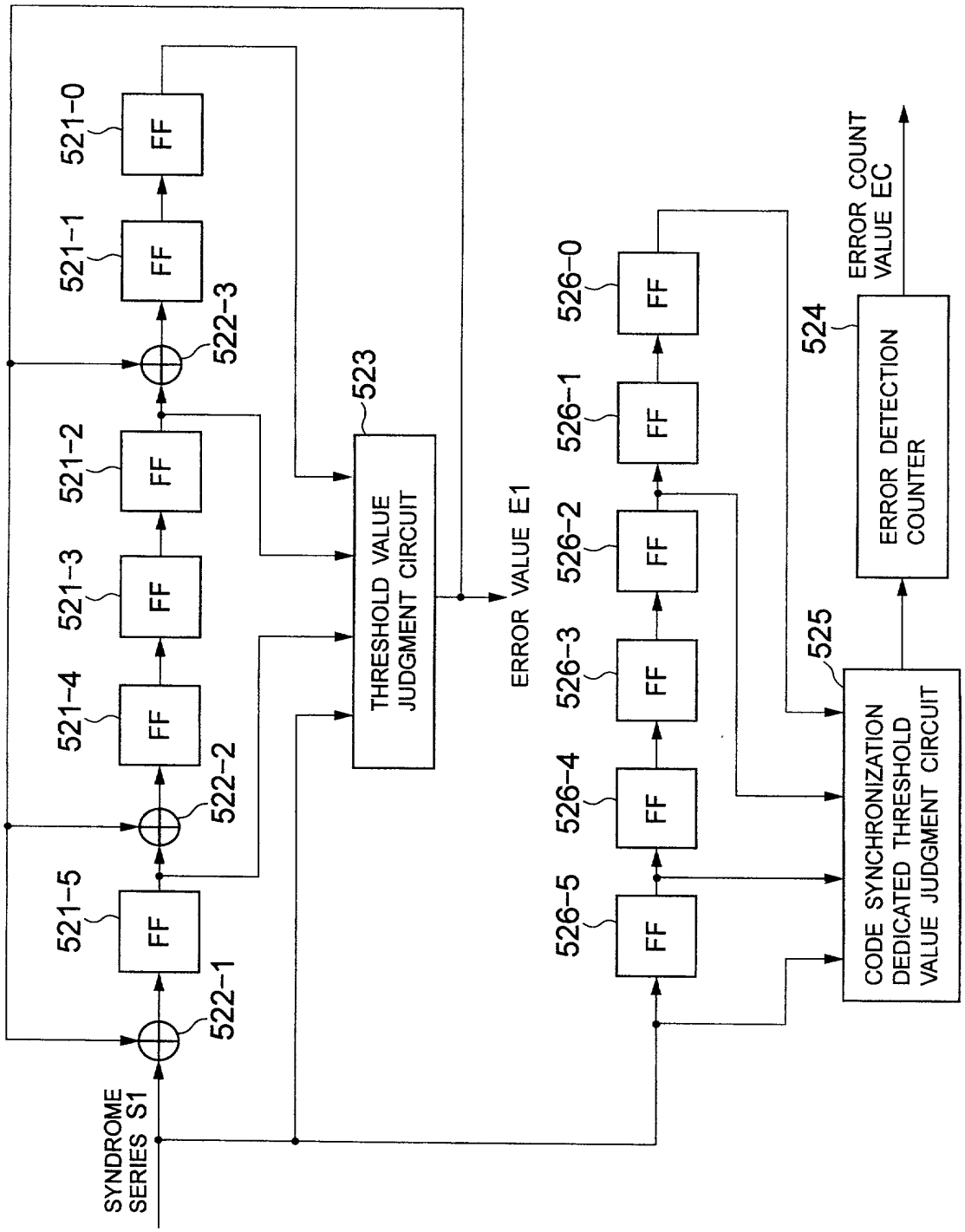

SYNDROME SERIES S1
521-5
521-4
521-3
521-2
521-1
521-0
FF
522-1
522-2
522-3
523
THRESHOLD VALUE JUDGMENT CIRCUIT
ERROR VALUE E1
526-5
526-4
526-3
526-2
526-1
526-0
525
524
CODE SYNCHRONIZATION DEDICATED THRESHOLD VALUE JUDGMENT CIRCUIT
ERROR DETECTION COUNTER
ERROR COUNT VALUE EC

FIG.24

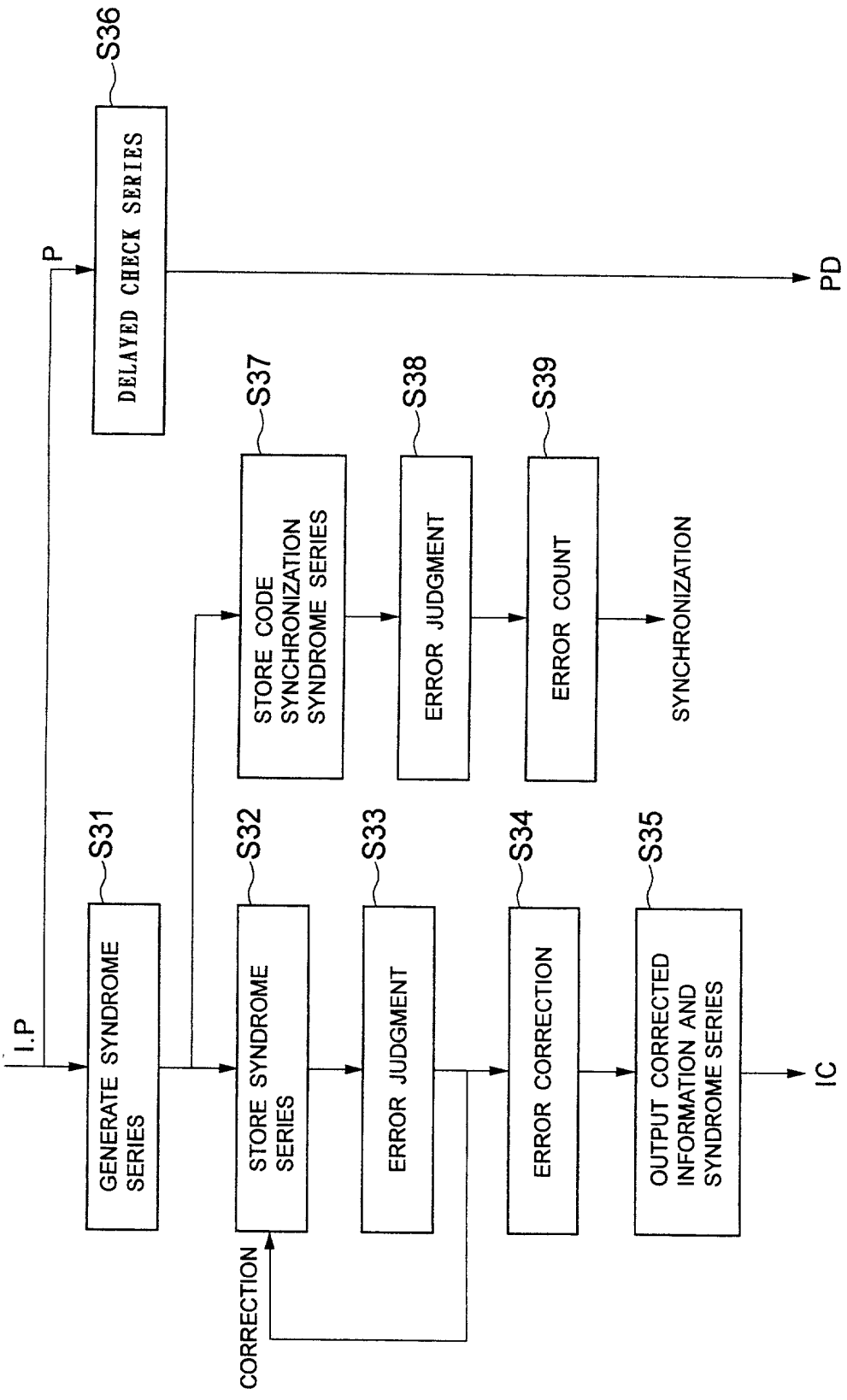

I.P
P
S31
GENERATE SYNDROME SERIES
S32
STORE SYNDROME SERIES
S33
ERROR JUDGMENT
S34
ERROR CORRECTION
S35
OUTPUT CORRECTED INFORMATION AND SYNDROME SERIES
IC
CORRECTION
S36
DELAYED CHECK SERIES
PD
S37
STORE CODE SYNCHRONIZATION SYNDROME SERIES
S38
ERROR JUDGMENT
S39
ERROR COUNT
SYNCHRONIZATION

FIG.25

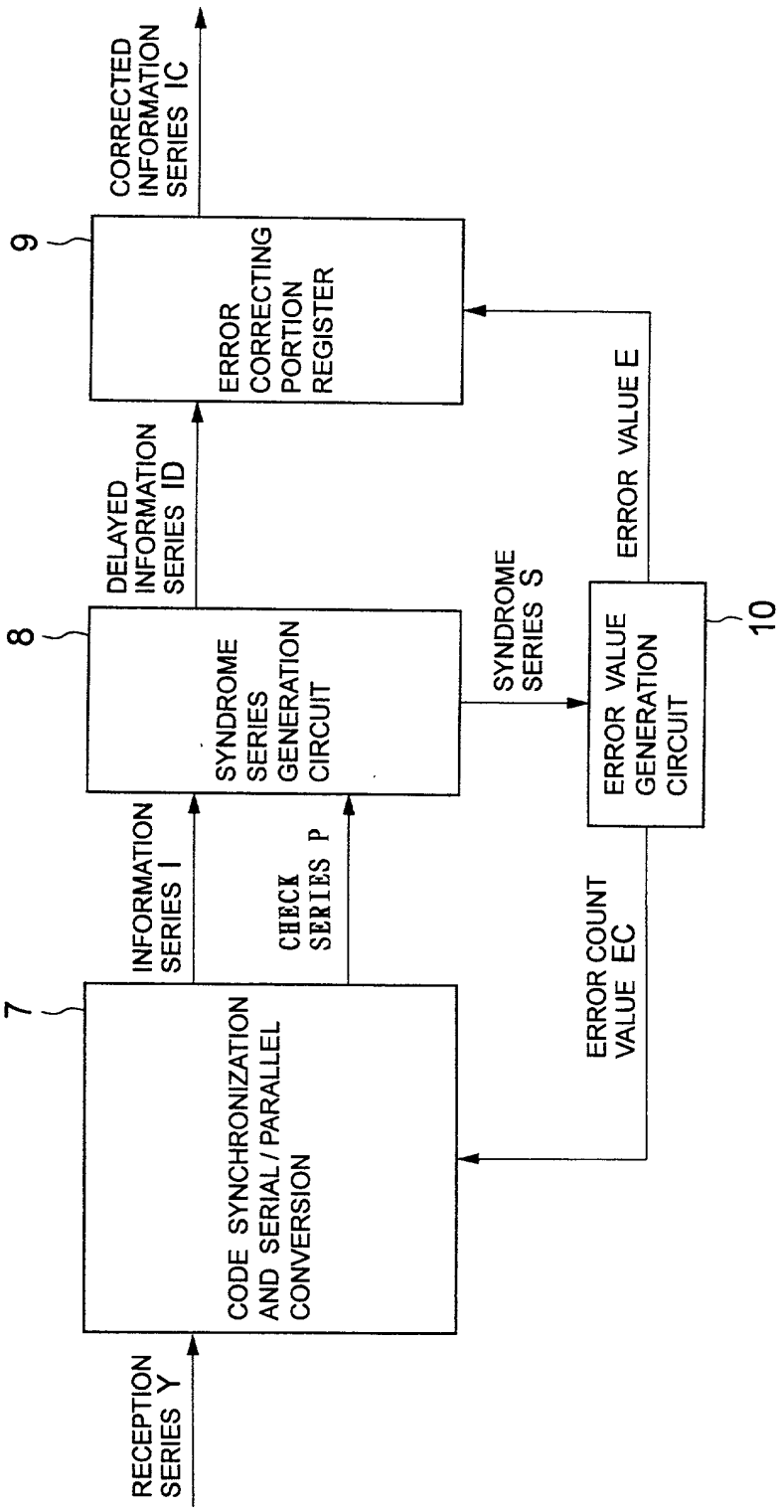

RECEPTION SERIES Y
7
CODE SYNCHRONIZATION AND SERIAL / PARALLEL CONVERSION
INFORMATION SERIES I
CHECK SERIES P
8
SYNDROME SERIES GENERATION CIRCUIT
DELAYED INFORMATION SERIES ID
9
ERROR CORRECTING PORTION REGISTER
CORRECTED INFORMATION SERIES IC
SYNDROME SERIES S
ERROR VALUE GENERATION CIRCUIT
10
ERROR VALUE E
ERROR COUNT VALUE EC

FIG.26

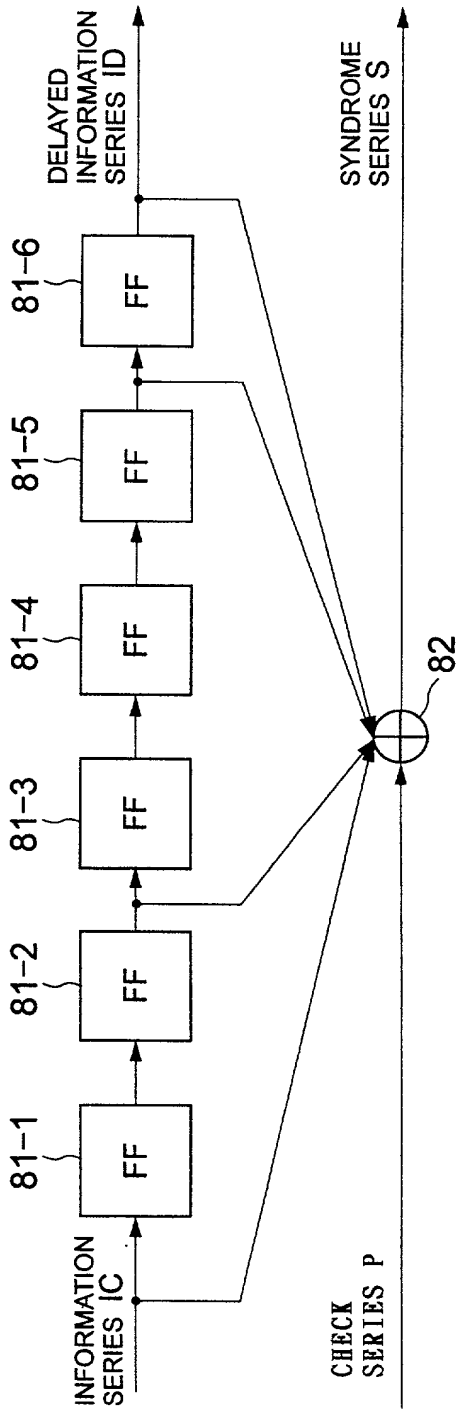
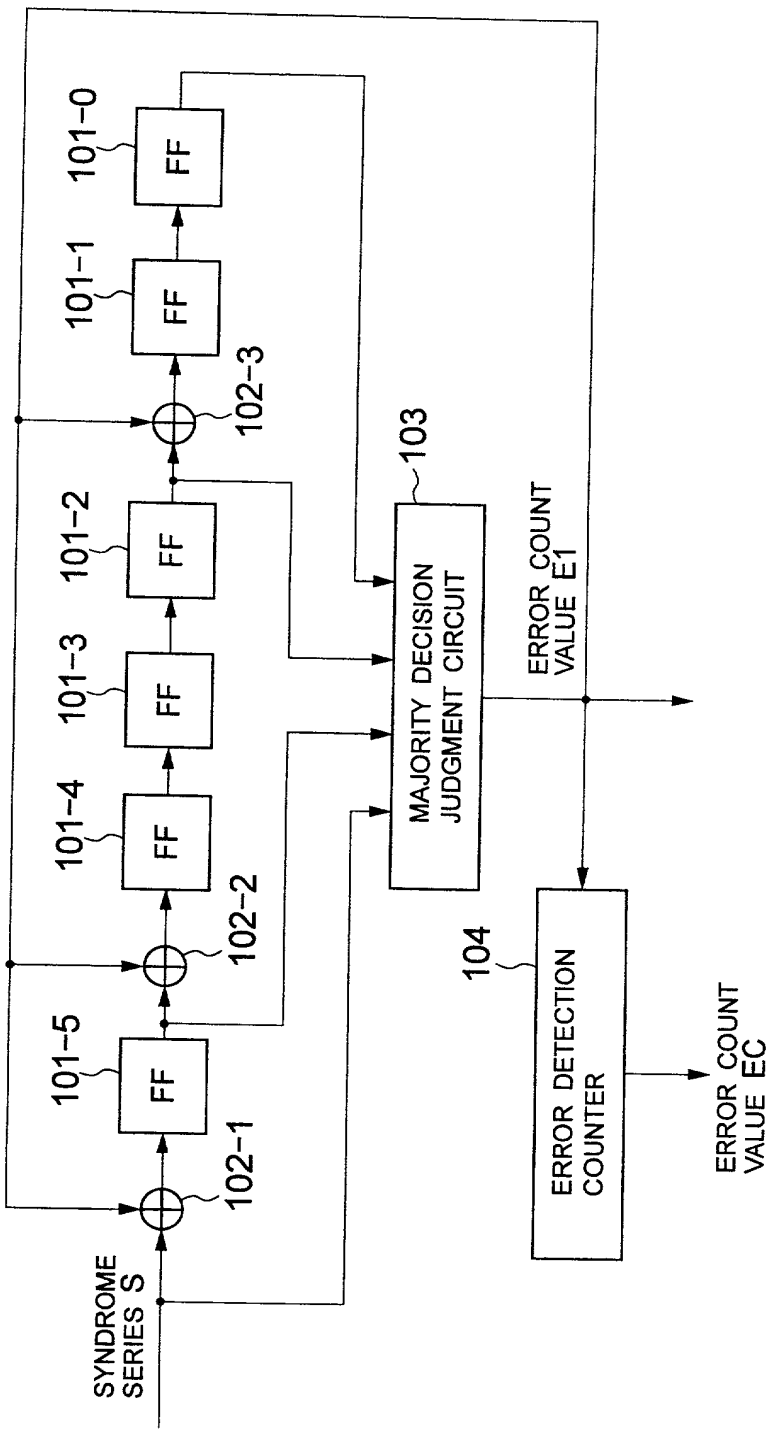

INFORMATION SERIES IC
81-1
FF
81-2
FF
81-3
FF
81-4
FF
81-5
FF
81-6
FF
DELAYED INFORMATION SERIES ID
CHECK SERIES P
82
SYNDROME SERIES S

FIG.27


SYNDROME SERIES S
101-5
FF
102-1
101-4
FF
102-2
101-3
FF
101-2
FF
102-3
101-1
FF
101-0
FF
MAJORITY DECISION JUDGMENT CIRCUIT
103
ERROR COUNT VALUE E1
104
ERROR DETECTION COUNTER
ERROR COUNT VALUE EC